CLAIMS

1. A scrambling unit for a digital audiovisual transmission system, the scrambling unit
5   comprising an input for receiving an assembled transport packet stream from a
physically separate multiplexer, a scrambling device for scrambling the received
transport stream according to a randomising control word and an output for sending
the scrambled transport stream to a transmitter means for subsequent transmission, so
as to permit the scrambling of the transport packet stream by the scrambling unit
10   independently of the multiplexer operations.

2. A scrambling unit as claimed in claim 1 in which the scrambling device is adapted
to carry out scrambling on some or all of the payload of selected packets of the
transport stream packet.

15

3. A scrambling unit as claimed in claim 1 ~~or 2~~ further comprising a packet insertion
means for inserting transport packet data in the transport stream.

4. A scrambling unit as claimed in claim 3 in which the packet insertion means
20   inserts a packet of data in the transport stream by detecting the presence of a null
packet and replacing a null packet by the packet to be inserted.

5. A scrambling unit as claimed in claim 1 ~~any preceding claim~~ further comprising packet
filter means for identifying and copying to a memory part or all of a predetermined
25   transport packet.

6. A scrambling unit as claimed in claim 1 ~~any preceding claim~~ further comprising packet
deletion means for deleting a predetermined packet or set of packets.

30   7. A scrambling unit as claimed in claim 6 wherein the packet deletion means deletes
a packet by transforming the packet ID of the packet to that of a null packet.

8. A scrambling unit as claimed in claim 1 ~~any preceding claim~~ further comprising packet
counting means for counting the number of packets of a predetermined packet ID

value in the received transport data stream.

claim 1

9. A scrambling unit as claimed in ~~any preceding claim~~ further comprising packet ID re-mapping means for changing the packet ID value assigned to a predetermined packet or set of packets.

claim 1

10. A scrambling system comprising a scrambling unit as claimed in ~~any preceding claim~~ together with central control means for generating a control word sent to and received by the scrambling unit for scrambling the transport stream.

11. A scrambling system as claimed in claim 10 further comprising one or more access control systems connected to the central control means and adapted to receive a control word supplied by the central control means and to send back to the central control means an encrypted message containing the control word.

12. A scrambling system as claimed in claim 10 ~~or 11~~ in which some or all of the data sent from the central control means to the scrambling unit is authenticated by the central control means by generation of a signature in accordance with a secret encryption key.

13. A scrambling system as claimed in any of claims 10, ~~11 or 12~~ comprising a plurality of scrambling units and associated central control means associated with the generation of a single transport stream.

14. A scrambling system as claimed in any of claims 10 ~~to 13~~ in which the or each scrambling unit is adapted to store its working configuration characteristics and/or the current control word value.

15. A scrambling unit substantially as herein described with reference to and as illustrated in the accompanying drawings.

16. A scrambling system substantially as herein described with reference to and as illustrated in the accompanying drawings.